

On the first record of *Tirumala limniace orestilla* Fruhstorfer (Lepidoptera, Nymphalidae, Danainae) from Taiwan

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Abstract In the present article, a female specimen of *Tirumala limniace orestilla* Fruhstorfer, 1910 from Lanyu is first recognized and illustrated. Comments on the taxonomic history of *Tirumala* in Taiwan are also provided.

Key words Stray butterfly, *Tirumala limniace orestilla* Fruhstorfer, *T. hamata orientalis* (Semper), Lanyu.

The genus *Tirumala* consists of seven species of moderate sized (forewing length 30.0-35.0 mm) danaine butterflies that mainly live in subtropical to tropical forests of the Afro-Indo-Australian region (Morishita, 1981). Previously, there were three species of this genus, *Tirumala septentrionis* (Butler, 1874), *T. limniace limniace* (Cramer, [1775]) and *T. hamata orientalis* (Semper, 1879) recognized from Taiwan (Shirôzu & Ueda, 1992). In 1994, an individual of *T. limniace orestilla* Fruhstorfer, 1910 was collected at Gan-Kuei-Yen, a scenic spot in the northeastern part of Lanyu. In the present article, we concluded this record a new addition to the butterfly fauna of Taiwan.

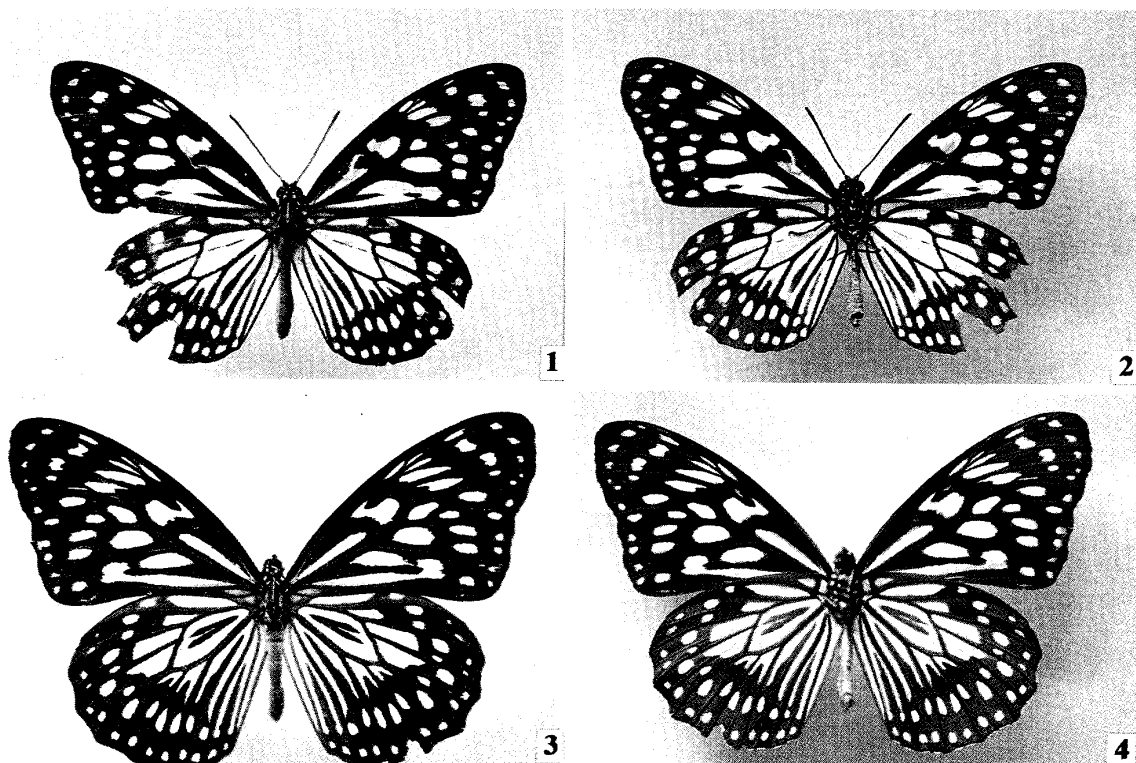
Taxonomic accounts

Tirumala limniace orestilla Fruhstorfer, 1910 (Figs 1-2)

Diagnosis. Forewing length 33 mm. Upperside ground color dark brown with yellowish white spots. Underside similar to upperside in pattern but distinct brown coloration present in most area except inner part of forewing. Wing pattern similar to *T. hamata*, but middle M_3 spot rounded not elongated; largest Cu_1 spot rounded at apex not acute; subbasal Cu_2 spot acute interiorly not rounded; a supposed line from the basal margin of the discoidal spot to the interior apex of the largest Cu_1 spot sloped not sub-horizontal. Distinguished from *T. limniace limniace* by the yellowish white markings, disjunction between the distal and proximal Cu_2 spots and the slender discoidal thread of hindwing.

The discoidal thread of hindwing of this individual is not bifurcate and much slimmer than the specimens of the same subspecies from Manbcal, N. Negros, the Philippines, given by Morishita (1981). However, we thought this marking variable in *T. limniace* after having examined many specimens of *T. limniace limniace*. Additionally, based on the geographical relationship, *T. limniace orestilla*, which is mainly distributed to the area of Luzon, Marinduque to Negros (Tabolt, 1943; Morishita, 1981), has the greater possibility to be the stray to Lanyu I. than any other subspecies of *T. limniace* except for the nominate subspecies from Taiwan. Therefore, this individual is here still regarded as *T. limniace orestilla* without any taxonomic treatment.

Specimen examined. 1 ♀, TAIWAN, Taitung Hsien, Lanyu I., Gan-Kuei-Yen (Helmet Rock), 4. IV. 1994. Coll. J. P. Su, deposited in the Su Collection.



Figs 1-2. *Tirumala limniace orestilla* Fruhstorfer, 1910 from Taiwan, Lanyu I. (1: upperside, 2: underside).

Figs 3-4. Female *Tirumala hamata orientalis* (Semper, 1879) from Taiwan, Taitung Hsien, Ta-Wu, 20. VII. 1976, Coll. K. G. Yu (3: upperside, 4: underside).

Hostplants. In Taiwan, the larval hostplants of *T. limniace limniace* are *Dregea formosana* (Asclepiadaceae) (Tzai, 1985; Li, 1990) and *Heterostemma brownii* (Asclepiadaceae) (Li, 1990), while these two plants are absent from Lanyu. Therefore, *Cynanchum lanhsuense* Yamazaki, *Marsdenia formosana* Masamune, *M. tinctoria* R. Br. var. *tomentosa* (Morr. & Decne.) Masamune, which are native to Lanyu, probably serve as the hostplants for *T. limniace orestilla*. Whether this butterfly is resident in Lanyu also needs further investigation.

Remarks. The record of *T. limniace orestilla* from Taiwan first appeared in Shimonoya and Yu (1970) and was subsequently compiled by Yamanaka (1973), while having examined the specimens in the Yu Collection, we consider that the so-called *T. limniace orestilla* from the Hengchun Peninsula and Taitung Hsien belong to *T. hamata orientalis* (Semper, 1879) (Figs 3-4), this point of view has ever been annotated by Shirôzu (bibliographical annotations, in Hamano, 1987).

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摘 要

ウスコモンマダラフィリピン亜種の台湾からの記録 (顔 聖紘・詹 家龍・蘇 錦平)

台湾の Lanyu (かつて日本名で紅頭嶼と呼ばれた) からウスコモンマダラのフィリピン亜種 *Tirumala limniace orestilla* Fruhstorfer, 1910 の♀記録し, 同地域のファウナに新たに加えた. この折りに, 台湾本島に分布する同種原名亜種 *T. limniace limniace* (Cramer, [1775]) を含めた同属3種の分類上の問題点を指摘した.

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